

Consequence Summary Report

Workspace: ACL_Navarra_Resposta_Oficio_Tambor_NH3_Set2025

Study: 3600s_Tambor-NH3_Resposta_Oficio ACL

Summary Basis

These tables will only report global values set in the parameters. Values that are modified in the study tree will not be reported.

The report is context sensitive, and filters up to the study level. You will need to generate multiple summary reports if you have multiple studies in your workspace.

The results in this report are from the non-CFD calculations only.

Discharge Results (after atmospheric expansion)

Path	Scenario	Weather	Peak Flowrate [kg/s]	Temperature [degC]	Liquid mass fraction in material [fraction]	Droplet diameter [um]	Expanded diameter [m]	Velocity [m/s]	End time of release [s]
3600s_Tambor-NH3_Resposta_Oficio ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D		-33,4024	0,850417	86,5463		44,3249	
3600s_Tambor-NH3_Resposta_Oficio ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	2,86158	-33,4024	0,850417	100,527	0,0530981	221,624	157,256

Dispersion Results

Input dispersion parameters

Core averaging time	18,75	s
Flammable averaging time	18,75	s
Toxic averaging time	600	s
Height of interest	0	m

Distance downwind to flammable concentrations

Path	Scenario	Weather	Distance to UFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	4,67181	6,13927	10,3374
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	6,74977	16,1014	24,6731

Outdoor Toxic Results

Distance downwind to defined concentrations

The reported concentrations are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to ERPG1 (3600 s) [m]	Distance downwind to ERPG2 (3600 s) [m]	Distance downwind to ERPG3 (3600 s) [m]	Distance downwind to STEL (900 s) [m]	Distance downwind to IDLH (1800 s) [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	n/a	n/a	n/a	n/a	n/a
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	n/a	n/a	n/a	n/a	n/a

Distance downwind to defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to dangerous toxic load [m]	Distance downwind to dangerous dose 2 [m]	Distance downwind to dangerous dose 3 [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	358,973	150,768	45,9308
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	479,655	173,612	52,2499

Exposure duration at defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Path	Scenario	Weather	Exposure duration for dangerous toxic load [s]	Exposure duration for dangerous dose 2 [s]	Exposure duration for dangerous dose 3 [s]	Exposure duration for dangerous dose 4 [s]	Exposure duration for dangerous dose 5 [s]	Exposure duration for dangerous dose 6 [s]
3600s_Tambor-	Catastrophic	1.1/D	2920,6	2950,26	2949,63	n/a	n/a	n/a

NH3_Resposta_Ofício rupture

ACL\10_Rotura total

garrafa de amoníaco

anidro

3600s_Tambor- NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	2675,54	2739,58	2798,94	n/a	n/a	n/a
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Jet Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Flame length [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	38,7853	Not reached at height of interest	20,294	20,294	20,6325	22,4506

Early Pool Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Pool diameter [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	10,2565	Not reached at height of interest	10,8557	14,3468	16,1254	19,0043

Late Pool Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Pool diameter [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	9,35605	Not reached at height of interest	6,65793	9,95178	11,6047	14,2632
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	10,2565	Not reached at height of interest	10,8557	14,3468	16,1254	19,0043

Fireball Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Fireball diameter [m]	Distance downwind to intensity level 1 (37,5 kW/m2) [m]	Distance downwind to intensity level 2 (12,5 kW/m2) [m]	Distance downwind to intensity level 3 (7 kW/m2) [m]	Distance downwind to intensity level 4 (5 kW/m2) [m]	Distance downwind to intensity level 5 (3 kW/m2) [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	34,0277	22,1424	43,427	58,8488	69,7252	89,6759

Flash Fire Results

Distance downwind to defined concentrations

The reported LFL and LFL fraction are defined in the respective material property

Path	Scenario	Weather	Distance downwind to LFL [m]	Distance downwind to LFL Fraction [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	6,13927	10,3374
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	16,1014	24,6731

Maximum distance to LFL fraction at any height

Path	Scenario	Weather	Max flash fire distance [m]	Height of the max flash fire distance [m]	Time [s]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	10,319	0	4,74032
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	24,4777	0	78,6278

Explosion Results

Explosion scenarios for worst-case maximum downwind distance to defined overpressures.

These results are produced during the consequence run and depend on the precise setting of the scenario.

These results may be quite different to the explosion results calculated during the risk or effects modelling as these will depend on the obstructed regions defined on the map.

The reported overpressures are defined in the explosion parameters

Path	Scenario	Weather	Overpressure level [bar]	Maximum distance [m]	Diameter [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	0,3	No hazard	0
			0,14	No hazard	0
			0,05	No hazard	0
			0,03	No hazard	0
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	0,3	28,8244	17,6488
			0,14	36,8608	33,7216
			0,05	61,3117	82,6233
			0,03	85,4508	130,902

Supplementary data for worst-case explosion scenarios

Path	Scenario	Weather	Overpressure level [bar]	Explosion flammable mass [kg]	Ignition time [s]	Ignition source [m]	Cloud centre [m]	Explosion centre [m]
3600s_Tambor-NH3_Resposta_Ofício ACL\10_Rotura total garrafa de amoníaco anidro	Catastrophic rupture	1.1/D	0,3	0	0	No	No	0
			0,14		0	hazard	hazard	0
			0,05		0	No	No	0
			0,03		0	hazard	hazard	0
3600s_Tambor-NH3_Resposta_Ofício ACL\11_Fuga no tambor de amoníaco anidro	Leak	1.1/D	0,3	2,86637	23,5506	No	No	
			0,14	2,86637	23,5506	hazard	hazard	20
			0,05	2,86637	23,5506	No	No	20
			0,03	2,86637	23,5506	hazard	hazard	20